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| 09/886,148      | 06/22/2001  | Kazutaka Inukai      | 12732-053001        | 5723             |

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EXAMINER

LIU, MING HUN

ART UNIT PAPER NUMBER

2675

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/886,148

Applicant(s)

INUKAI, KAZUTAKA

Examiner

Ming-Hun Liu

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-46, 48-55, 57- 64, 66-73 and 75-82 is/are allowed.
- 6) ☒ Claim(s) 1,47,56,65 and 74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2 and 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement filed 6/22/01 is present, however the references are missing from the first filing. Please include copies of the references cited in the first IDS in the next office correspondence.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,229,508 to Kane.

In reference to claim 1, Kane teaches an EL display matrix with a plurality of pixels, controlled by at least one of the gate signals lines (figure 3). The plurality of pixels comprise a first TFT (TFT number 350) for switching, a second TFT for switching (TFT number 330 and column 3, lines 57-62), a TFT for erasing (TFT number 340), and a TFT for driving (TFT number 320) for driving EL element (item 304). The erase TFT is controlled by voltage applied to (k+3)th gate line (item 380). Switching of first TFT is controlled by (k+2)th gate line, and switching of the second TFT is controlled by the (k+1)th gate line. The gate electrode of TFT

for EL driving is connected when both selecting TFTs (330 and 350) are on. It can be seen from figure 4 that the when data is not being driven then the erase can be on. And naturally the LEDs emit light when the driving is on and not when they are off (column 1, lines 43-45).

Kane teaches an invention very similar to the one being claimed, however the gate line ordering is slightly different from the claimed invention. The ordering offered by the disclosed invention is Erase, switch 1, switch 2, where as the embodiment described by Kane falls in the order of switch 1, Erase, switch 2. As one skilled in the art clearly knows the ordering of the gate line can be easily modified it is the connections as opposed to the ordering of the gate lines that are important. The line-ordering pattern that resembles the claimed invention can be seen in the embodiment outlined in figure 7. Furthermore, one skilled in the art understands that the crux of the innovation claimed by the applicant is the double usage of the erase line and not the trivial ordering of gate lines. Kane teaches this innovative use of erase line in the column 3, lines 57-62.

In reference to claims 47 and 56, Kane does not limit the exact type of transistors that are used, leaving the disclosure open to the well-known n or p type transistors.

In reference to claim 65, Kane teaches on column 9, that the driving electrode is operated in the linear region.

In reference to claim 74, Kane's invention is used to improve display technologies on computer and video systems (column 1, lines 32-37).

***Allowable Subject Matter***

4. Claims 2-46, 48-55, 57- 64, 66-73 and 75-82 are allowed.
5. The following is an examiner's statement of reasons for allowance: The applicant's invention is unique in the sense that it uses two selecting gates where one selecting gate selection line is shared with an erase selection line. Kane's invention is similar to the claimed invention, however Kane does not have the specific TFT connections outlined in detail by the applicant. Most apparent difference between the two inventions is the placement of the two selecting transistors. The applicant places the two transistors in series where as Kane's transistors are connected through the erase gate. Even after taking the broadest interpretation of the applicant's claims, the examiner failed to find prior art that anticipated the applicant's inventions. Since independent claims 2-5 and 15-18 are allowable, their respective dependent claims are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,384,804 to Dodabalapur et al.


US Patent 5,973,311 to Sauer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is 703-305-8488. The examiner can normally be reached on Mon-Fri.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ming-Hun Liu

  
**DENNIS-DOON CHOW**  
**PRIMARY EXAMINER**